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September 27, 2004

Roberta A. Winzeler  
(Name)

Roberta A. Winzeler  
(Signature)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JULIA MACLACHLAN	) GROUP ART UNIT: 1733
SERIAL NO.: 09/997,347	) EXAMINER: JESSICA L. ROSSI
Filing Date: November 29, 2001	) Attorney Docket: 1-15092
For: METHOD OF USING SHORT WAVELENGTH	)
UV LIGHT TO SELECTIVELY REMOVE A COATING	)
FROM A SUBSTRATE AND ARTICLE PRODUCED	)
THEREBY	)

September 17, 2004

Mail Stop AF  
Commissioner for Patents  
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Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. §1.132

JULIA B. MACLACHLAN, declares as follows:

1. I am a citizen of the United Kingdom and my current mailing address is 7041 Blossman Road, Toledo, Ohio 43617.
2. I have a Master of Arts degree in Material Science and Metallurgy from the University of Cambridge, Cambridge, England. I believe my degree to be equivalent to a Master of Science degree in the U.S. university system.
3. I have worked for Pilkington plc since 1990 as a research scientist in research and development related to hydrophobic coatings and interlayer materials, and for Pilkington North

America, Inc. (PNA), since 1995 in research and development related to hydrophobic coatings, interlayer materials, adhesives, and materials testing. I have held the position of Senior Research Scientist from 1999-2002. From 2002 to the present, I have held the position of Laboratory Technical Manager for the PNA North American Glazing Systems Center

4. I am the inventor in the above-referenced patent application. The invention described and claimed therein relates to a process of using short wavelength UV light to remove a coating having hydrophobic properties from selected areas of a glass substrate, which coating is on the exterior surface of a vehicle window.

5. Prior to the present invention, known methods of accomplishing removal of coatings were primarily related to mechanical means, e.g., grinding, or preventing the coating from coming in contact with the substrate in the first instance, e.g., masking.

6. I have studied the references cited by the Examiner in connection with the portion of claim 23 and claim 34 indicating that the hydrophobic coating is deposited on the exterior surface of a vehicle window. Specifically, I have studied the Curtze reference (U.S. Patent No. 4,543,283) which discloses a laminated structure to protect occupants of a vehicle from injury by laceration and/or ejection from a vehicle, if such occupant contacts, e.g., the vehicle windshield during a collision.

7. More specifically, the laminated structure of the Curtze reference consists of a conventionally formed vehicle windshield, i.e., two panes of annealed glass adhered to one another by a polymeric interlayer material, e.g., polyvinylbutyral (PVB). To the interior surface of the interior pane of glass, Curtze adheres a second layer of a polymeric interlayer which is preferably stretched, or put under tension by its installation in conjunction with the encapsulation of the windshield by a polymeric frame or gasket. As noted in the disclosure of the Curtze

reference, the heat and pressure applied to the structure during the encapsulation process allows the tensioning of the second interlayer. To prevent abrasion of the generally soft interlayer material from cleaning and the like, an abrasion resistant coating of a suitable material may be applied.

8. As previously noted, during my tenure at Pilkington/PNA, I have worked extensively with interlayer materials, including those of the type disclosed in the Curtze reference. As one skilled in the art, I can without equivocation say that those similarly skilled would not place the second interlayer/laceration shield on the exterior of a vehicle windshield. Even with an abrasion resistant coating applied thereto, it would be rapidly destroyed by the windshield wipers, snow scrapers, and exposure to the exterior environment, generally. Even sooner, it would be abraded to the point that visibility through the structure would be dangerously reduced.

9. During my tenure at PNA I have, as project manager, worked extensively to develop commercially viable hydrophobic coatings for vehicle windows. As one skilled in the art, it is my opinion that application of hydrophobic coatings to the interior surface of a vehicle window is of little, if any value. Their intended purpose, to shed water and increase visibility of the driver/occupant of a vehicle thereby, is practically accomplished by applying such coatings to the exterior surface of a vehicle which is exposed to rain, snow, etc.

11. I have further studied the Tweadey, et al. reference (U.S. Patent No. 5,131,967). Based on my nearly 15 years working with automotive glazings and my educational background, I do not believe one skilled in the art would be motivated to look to the Tweadey reference to remove hydrophobic coatings from the exterior surface of a glass substrate, as the metal-based coatings of the Tweadey et al. reference must be protected from exposure to the environment in

order to avoid corrosion of such coatings. Corrosion of such metal-based coatings would be highly detrimental to the performance and appearance of the vehicle windows.

12. I further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.

Date: 9/17/04

Julia MacLachlan  
Julia B. MacLachlan